

**PRODUCTION OF PANCREATIC ISLET CELLS  
AND DELIVERY OF INSULIN**

**ABSTRACT OF THE DISCLOSURE**

The present invention relates to the production of islet cells and insulin in a subject by providing for expression of an islet transcription factors in the pancreas of the subject, by for example, introduction of nucleic acid encoding the transcription factor neurogenin3 or a factor that induces neurogenin3 expression. The present invention also relates to methods for using a islet transcription factor gene and the islet transcription factor polypeptide to alter cellular differentiation in culture or *in vivo* to produce new  $\beta$ -cells to treat patients with diabetes mellitus.

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